=> Pluronic (L) poloxamers
          5060 PLURONIC
           289 PLURONICS
          5162 PLURONIC
                 (PLURONIC OR PLURONICS)
           149 POLOXAMERS
L1   25 PLURONIC (L) POLOXAMERS

=> structure and L1
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Some commands only work in certain files. For example, the EXPAND
command can only be used to look at the index in a file which has an
index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> MW and L1
         60346 MW
           428 MWS
         60559 MW
                 (MW OR MWS)
L2   0 MW AND L1

=> DIS L1 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 25 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 63.53 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L1 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:8469 CAPLUS
TITLE: Osmotic Stress Measurements of Intermolecular Forces in Ordered Assemblies Formed by Solvated Block Copolymers
AUTHOR(S): Gu, Zhiyong; Alexandridis, Paschalis
CORPORATE SOURCE: Department of Chemical and Biological Engineering, University at Buffalo, The State University of New York, Buffalo, NY, 14260-4200, USA
SOURCE: Macromolecules (2004), 37(3), 912-924
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Intermol. interactions in ordered (lyotropic liquid crystalline) assemblies formed by
hydrated poly(ethylene oxide)-poly(propylene oxide) (PEO-PPO) block copolymers (**Pluronics** or **Poloxamers**) have been probed using the
osmotic stress method. This method involves the equilibration, following the removal or the addition of an appropriate amount of water, of hydrated block copolymer samples with a system (aqueous polymer solution or water vapor) of known osmotic pressure (in the range 0.05-3000 atm). The primary result from such an experiment is a relationship between osmotic pressure (and consequently the corresponding chemical potential and activity of the solvent water) and block copolymer volume fraction. The osmotic pressure of the two PEO-PPO block copolymer-water systems examined here increased exponentially from 5 + 103 to 3 + 108 Pa over the 6-99.9 wt % block copolymer concentration range. The osmotic pressure of the PEO-PPO block copolymer-water systems in the block copolymer concentration range 6-50 wt % can be well represented by an empirical scaling law for semidilute polymer solns. A change in the scaling exponent occurs at concns. close to the disorder-order transition. The activity of water obtained from PEO-PPO block copolymer solns. and gels was fitted well by the Flory-Huggins equation up to 70 wt % block copolymer using an interaction parameter that represents the interactions between the PEO segments and water. The work of dehydration was estimated within each ordered phase and for phase transitions between different ordered structures. Finally, the combination of

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:146097 CAPLUS
DOCUMENT NUMBER: 118:146097
TITLE: Human monoclonal antibody specifically binding to surface **antigen** of cancer cell membrane
INVENTOR(S): Hosokawa, Saiko; Tagawa, Toshiaki; Hirakawa, Yoko; Ito, Norihiko; Nagaike, Kazuhiro
PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan
SOURCE: Eur. Pat. Appl., 37 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 520499	A1	19921230	EP 1992-110841	19920626
EP 520499	B1	19980225		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
JP 05304987	A2	19931119	JP 1992-162849	19920622
JP 3236667	B2	20011210		
CA 2072249	AA	19921229	CA 1992-2072249	19920624
CA 2072249	C	20030617		
ES 2115626	T3	19980701	ES 1992-110841	19920626
US 5767246	A	19980616	US 1994-360125	19941220
US 5837845	A	19981117	US 1995-450578	19950525
US 6139869	A	20001031	US 1995-450363	19950525
US 5990297	A	19991123	US 1998-14880	19980128
US 5990287	A	19991123	US 1998-17628	19980202

PRIORITY APPLN. INFO.:
JP 1991-158859 A 19910628
JP 1991-158860 A 19910628
JP 1991-158861 A 19910628
US 1992-905534 B1 19920629
US 1994-360125 A3 19941220
US 1995-450578 A3 19950525

OTHER SOURCE(S): MARPAT 118:146097
ABSTRACT:
Human monoclonal antibodies (hMAbs) binding to surface **antigens** of cancer cell membranes are prepared by the hybridoma method by fusing human lymphocytes derived from cancer patients and mouse myeloma cells or by recombinant methods. Also disclosed are **DNA** encoding the hMAbs and an anticancer formulation comprising the hMAb bonded to the surface of a liposome enclosing an anticancer agent. HMAb GAH was prepared from cancer-associated lymph node lymphocytes of a patient with colon cancer and characterized. CDNA sequences of the variable regions of the light and heavy chains of GAH and the encoded amino acid sequences were determined Thiolated Fab' fragments of GAH were **conjugated** with maleimidated dipalmitoylphosphatidylethanolamine-containing liposomes encapsulating adriamycin; the conjugates were modified with thiolated **PEG**. These liposomes inhibited MKN45 cell cancer in nude mice.

L9 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:121941 CAPLUS
DOCUMENT NUMBER: 137:306889
TITLE: Local development of PEG assisted double antibody T4-radioimmunoassay
AUTHOR(S): Sajid, Khan Mohammad
CORPORATE SOURCE: Multan Institute of Nuclear Medicine and Radiotherapy (MINAR), Multan, Pak.
SOURCE: Pakistan Journal of Scientific and Industrial Research (2001), 44(6), 365-380
CODEN: PSIRAA; ISSN: 0030-9885
PUBLISHER: Pakistan Council of Scientific and Industrial Research
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
In order to replace expensive ready-made com. RIA (RIA) kits with high quality local techniques a local thyroxine (T4) RIA was developed and evaluated. Four basic components of immunoassay system, antibody, radiotracer, stds. and precipitating
solns. were locally prepared Twelve rabbits were immunized to produce primary antibodies against T4 using T4 **conjugated** with human serum albumin (HSA) and emulsified with Freund's **adjuvant** as immunogen. Results showed that 4 out of 12 rabbits responded well to the immunogen and a maximum titer of 1:9700 was achieved with a working dilution from 1:1000 to 1:10000. Radioidination of Triiodothyronine (T3) to produce radiotracer, 125I-T4 (and 125I-T3) by chloramine-T method showed that 31% of radioactivity was bound to T3 and 50% to T4 with specific activities of (11.1-14.8 MBq/μg) and (1.85-2.22 MBq/μg) resp. Second antibody against T4 was raised in two sheep. Results of optimization of second antibody showed a working dilution 1:60 for T4-RIA. Precipitating solution to sep. **antigen** antibody complex was prepared by mixing sheep anti-rabbit serum (SARS) with phosphate buffer containing 4% polyethylene glycol (**PEG**) at working dilution **PEG** assisted double antibody T4-RIA showed more than 7% error in the concns. below 10 nmol/l with high precision at higher concns. The results of quality control samples showed that the values were within expected limits. The values correlated well with the com. techniques (ICN; Corr. Coeff=0.99) and the values of patient samples determined in com. as well as in house techniques did not differ significantly ($p<0.5$). The sensitivity of T4 assay system was 2.5 nmol/l. It is, therefore, concluded that in house assay technique has acceptable quality and fits on all stds. of good quality

L9 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:117315 CAPLUS
DOCUMENT NUMBER: 128:212909
TITLE: Tolerogenic activity of polyethylene glycol-conjugated lysozyme distinct from that of the native counterpart
AUTHOR(S): Ito, H.-O.; So, T.; Hirata, M.; Koga, T.; Ueda, T.; Imoto, T.
CORPORATE SOURCE: Department of Biochemistry, Kyushu University, Fukuoka, Japan
SOURCE: Immunology (1998), 93(2), 200-207
CODEN: IMMUAM; ISSN: 0019-2805
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Conjugation of proteins with polyethylene glycol (**PEG**) has been reported to make the proteins tolerogenic. Native proteins are also potentially tolerogenic when given without **adjuvants**. The authors compared immunotolerogenic activities between **PEG-conjugated** and native hen egg-white lysozyme (HEL). BALB/c mice were given consecutive weekly i.p. administrations of **PEG-conjugated** HEL, unmodified HEL or phosphate-buffered saline (PBS), for 3 wk, then challenged with HEL in Freund's complete **adjuvant**. The pretreatment with ***PEG*** -HEL tolerized both T-cell and humoral responses, while native HEL tolerized only the T-cell response. IgG1 antibody was already elevated in HEL-pretreated mice prior to challenge immunization, followed by suppressed IgG2a and IgG2b, but spared IgG1 production after the **antigen** challenge, whereas **PEG**-HEL-pretreated mice produced no antibody in all IgG subclasses prior and subsequent to the **antigen**-challenge. Production of interleukin-2 (IL-2) and interferon-γ (IFN-γ) by lymphoid cells in response to HEL in vitro was markedly suppressed in both the **antigen** -pretreated groups, while suppression of IL-4 production was evident only in ***PEG*** -HEL-, not in HEL-pretreated animals. Involvement of suppressor cells in these tolerance states was unlikely, and the immunol. property of ***PEG*** -HEL differed from deaggregated HEL that was similar to the original HEL. These results suggest a unique immunotolerogenic activity of **PEG** **-conjugated** proteins to suppress both T-helper type-1 (Th1)- and Th2-type responses, the result being extensive inhibition of all IgG subclass responses, while tolerance induction by unconjugated soluble proteins tends to be targeted on Th1-, but spares Th2-type responses.

L9 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:355258 CAPLUS
DOCUMENT NUMBER: 127:64248
TITLE: Prevention of collagen-induced arthritis (CIA) by treatment with polyethylene glycol-conjugated type II collagen; distinct tolerogenic property of the conjugated collagen from the native one
AUTHOR(S): Ito, H. -O.; So, T.; Ueda, T.; Imoto, T.; Koga, T.
CORPORATE SOURCE: Dep. Biochem., Faculty Dentistry, Kyushu Univ., Fukuoka, Japan
SOURCE: Clinical and Experimental Immunology (1997), 108(2), 213-219
CODEN: CEXIAL; ISSN: 0009-9104
PUBLISHER: Blackwell
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Administration of a soluble protein into animals prior to challenge immunization induces immunol. tolerance which is specific for the protein. In addition, chemical modification of proteins with polyethylene glycol (**PEG**) has been reported to convert the immunogenic proteins to become tolerogenic. However, differences in tolerogenic properties between **PEG**-modified proteins and the native counterparts have never been analyzed. The ability of ***PEG*** -**conjugated** type II collagen (**PEG**-CII) to attenuate CIA, an animal model for rheumatoid arthritis, was compared with the native unconjugated CII. Groups of DBA/1 J mice were treated weekly with i.p. injections with **PEG**-CII, native CII, or vehicle alone for 3 wk, before they were challenged with CII in **adjuvants**. The induction of tolerance was confirmed in both **PEG**-CII- and CII-pretreated mice when suppression of lymph node T cell proliferation in response to CII was noted. The degrees of suppression of T cell proliferation were comparable between the two pretreated groups. However, induction of arthritis and production of IgG anti-CII antibody were more markedly suppressed in **PEG**-CII-pretreated mice than in native CII-pretreated mice, although the severity of arthritis and antibody levels in the latter group were also lower than in control mice. IgG2a and IgG2b antibody levels were equally suppressed in the two pretreated groups, whereas the IgG1 level was lower in the **PEG**-CII-pretreated group than in the native CII-pretreated group. The results provide the first evidence that attachment of **PEG** to CII renders the protein more tolerogenic.

L4 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:627839 CAPLUS
DOCUMENT NUMBER: 115:227839
TITLE: Conjugates of biomolecules with amino-containing polyoxyalkylenes
INVENTOR(S): Kuehn, Manfred
PATENT ASSIGNEE(S): Akademie der Wissenschaften der DDR, Germany
SOURCE: Ger. (East), 4 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 287949	A5	19910314	DD 1989-332718	19890915

PRIORITY APPLN. INFO.: DD 1989-332718 19890915

ABSTRACT:
Biol. active mols., e.g. enzymes, are **conjugated** to water-soluble ***polyoxyalkylenes*** containing primary aromatic amine groups. The polymers are diazotized in aqueous and/or organic solution at -10 to +40° at pH 4-12 for 10 min-24 h. The reaction solution preferably contains acid-binding compds., e.g. trialkylamines. Thus, CH3O(CH2CH2O)nC6H4NH2 was reacted with NaNO2 and then with amidosulfonic acid. The activated polymer was then **conjugated** to glucose oxidase in pH 9 borate buffer for 6 h at 4° and 2 h at room temperature The final product had activity of 1.4 units/mg.

L5 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:971926 CAPLUS
DOCUMENT NUMBER: 140:31491
TITLE: Methods and compositions for intravesical therapy of bladder cancer
INVENTOR(S): Griffiths, Gary L.; Goldenberg, David M.
PATENT ASSIGNEE(S): Immunomedics, Inc., USA; McCall, John Douglas
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003101496	A1	20031211	WO 2003-GB2387	20030602
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004022726	A1	20040205	US 2003-448327	20030530

PRIORITY APPLN. INFO.: US 2002-384391P P 20020603
ABSTRACT:
Disclosed is a method for treating bladder cancer by administering via the urethra a multispecific antibody comprising at least one targeting arm that binds a bladder cancer antigen and at least one capture arm that binds a carrier conjugated to one or more therapeutic agents, allowing said multispecific antibody to localize at the site of said bladder cancer, allowing any free multispecific antibody to substantially clear from the patient; and (b) administering a therapeutically effective amount of the carrier conjugated to one or more therapeutic agents. A patient with a superficial cancer of the urinary bladder is treated with a 1:1 M mixture of a bispecific antibody hMN-14-Fab'-linker-Fab'-679 prepared from monoclonal antibody hMN-14 [humanized anticarcinoembryonic antigen(CEA)] and anti-hapten antibody termed 679 [murine antihistaminyl-glycyl-succinimidyl(HSG) moiety] and Y-90 radiolabeled bivalent hapten **peptide** Y-90-IMP 241 introduced into the bladder via a urethral catheter.

L5 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:416196 CAPLUS
DOCUMENT NUMBER: 138:260135
TITLE: Chemistry for **peptide** and protein PEGylation
AUTHOR(S): Roberts, M. J.; Bentley, M. D.; Harris, J. M.
CORPORATE SOURCE: Shearwater Corporation, Huntsville, AL, 35806, USA
SOURCE: Advanced Drug Delivery Reviews (2002), 54(4), 459-476
CODEN: ADDREP; ISSN: 0169-409X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:
A review. Poly(ethylene glycol) (PEG) is a highly investigated polymer for the covalent modification of biol. macromols. and surfaces for many pharmaceutical and biotech. applications. In the modification of biol. macromols., ***peptides*** and proteins are of extreme importance. Reasons for PEGylation (i.e. the covalent attachment of PEG) of **peptides** and proteins are numerous and include shielding of antigenic and immunogenic epitopes, shielding receptor-mediated uptake by the reticuloendothelial system (RES), and preventing recognition and degradation by proteolytic enzymes. PEG conjugation also increases the apparent size of the polypeptide, thus reducing the renal filtration and altering biodistribution. An important aspect of PEGylation is the incorporation of various PEG functional groups that are used to attach the PEG to the **peptide** or protein. In this paper, we review PEG chemical and methods of preparation with a particular focus on new (second-generation) PEG derivs., reversible conjugation and PEG structur

REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:346777 CAPLUS
DOCUMENT NUMBER: 138:78261
TITLE: Targeting the sodium dependent multivitamin transporter (SMVT) in the blood-brain barrier (BBB) to increase the transport of biotin conjugated **peptides** and polymers
AUTHOR(S): Park, S.; Stein, S.; Sinko, P. J.
CORPORATE SOURCE: College of Pharmacy, Rutgers University, Piscataway, NJ, 08854, USA
SOURCE: Proceedings - 28th International Symposium on Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 1, 243-244. Controlled Release Society: Minneapolis, Minn.
CODEN: 69CNY8
DOCUMENT TYPE: Conference
LANGUAGE: English
ABSTRACT:
The uptake of biotin in an in vitro model of the BBB was characterized in order to assess the suitability of targeting SMVT to deliver biotin-conjugated compds. to the brain. The SMVT-mediated transport of R.I-C(biotin)-Tat9, a biotin conjugated anti-HIV-1 nonapeptide, across the BBB was evaluated. Further, the use of various branched biotin-PEGs (polyethylene glycols) as therapeutic drug carriers was studied.

L5 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:453593 CAPLUS
DOCUMENT NUMBER: 135:185325
TITLE: Different Strategies for Formation of PEGylated EGF-Conjugated PEI/DNA Complexes for Targeted Gene Delivery
AUTHOR(S): Blessing, Thomas; Kursa, Malgorzata; Holzhauser, Robert; Kircheis, Ralf; Wagner, Ernst
CORPORATE SOURCE: Institute of Medical Biochemistry, University of Vienna, Vienna, A-1030, Austria
SOURCE: Bioconjugate Chemistry (2001), 12(4), 529-537
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
With the aim of generating gene delivery systems for tumor targeting, we synthesized a conjugate consisting of polyethyleneimine (PEI) covalently modified with epidermal growth factor (EGF) **peptides**. Transfection efficiency of the conjugate was evaluated and compared to native PEI in 3 tumor cell lines: KB epidermoid carcinoma cells, CMT-93 rectum carcinoma cells, and Renca-EGFR renal carcinoma cells. Depending on the tumor cell line, incorporation of EGF resulted in an up to 300-fold increased transfection efficiency. This ligand-mediated enhancement and competition with free EGF strongly suggested uptake of the complexes through the EGF receptor-mediated endocytosis pathway. Shielded particles being crucial for systemic gene delivery, we studied the effect of covalent surface modification of EGF-PEI/DNA complexes with a PEG derivative An alternative way for the formation of PEGylated EGF-containing complexes was also evaluated where EGF was projected away from PEI/DNA core complexes through a PEG linker. Both strategies led to shielded particles still able to efficiently transfect tumor cells in a receptor-dependent fashion. These PEGylated EGF-containing complexes were 10- to 100-fold more efficient than PEGylated complexes without EGF.

L5 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:137060 CAPLUS
DOCUMENT NUMBER: 134:183463
TITLE: The nasal transmucosal delivery of **peptides** conjugated with biocompatible polymers
INVENTOR(S): Park, Myung-Ok; Lee, Kang Choon
PATENT ASSIGNEE(S): S. Korea
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001012230	A1	20010222	WO 2000-KR868	20000807
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1204427	A1	20020515	EP 2000-952020	20000807
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003507344	T2	20030225	JP 2001-516573	20000807
US 6506730	B1	20030114	US 2000-639483	20000815

PRIORITY APPLN. INFO.: KR 1999-33984 A 19990817
WO 2000-KR868 W 20000807

ABSTRACT:
The present invention relates to a pharmaceutical composition for a nasal transmucosal delivery, comprising a biocompatible polymer-biol. active ***peptide*** conjugate. The pharmaceutical composition of the present invention increases the water solubility of **peptide**, which is sparingly soluble in water, improves a stability by protecting from being degraded by protease, and, consequently, reduces an administration number of drug to decrease side-effects induced by drug abuse. In addition, since the pharmaceutical composition of the present invention is delivered through the nasal cavity, it allows drug activity to be expressed in a short period of time and improves a bioavailability.

L4 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:627839 CAPLUS
DOCUMENT NUMBER: 115:227839
TITLE: Conjugates of biomolecules with amino-containing polyoxyalkylenes
INVENTOR(S): Kuehn, Manfred
PATENT ASSIGNEE(S): Akademie der Wissenschaften der DDR, Germany
SOURCE: Ger. (East), 4 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 287949	A5	19910314	DD 1989-332718	19890915

PRIORITY APPLN. INFO.: DD 1989-332718 19890915
ABSTRACT:
Biol. active mols., e.g. enzymes, are **conjugated** to water-soluble ***polyoxyalkylenes*** containing primary aromatic amine groups. The polymers are diazotized in aqueous and/or organic solution at -10 to +40° at pH 4-12 for 10 min-24 h. The reaction solution preferably contains acid-binding compds., e.g. trialkylamines. Thus, CH3O(CH2CH2O)nC6H4NH2 was reacted with NaNO2 and then with amidosulfonic acid. The activated polymer was then **conjugated** to glucose oxidase in pH 9 borate buffer for 6 h at 4° and 2 h at room temperature The final product had activity of 1.4 units/mg.

L9 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1985:447875 CAPLUS
DOCUMENT NUMBER: 103:47875
TITLE: Immune responses to polyethylene glycol modified L-asparaginase in mice
AUTHOR(S): Kawamura, Kenichi; Igarashi, Tsuyoshi; Fujii, Takashi; Kamisaki, Yoshinori; Wada, Hiroshi; Kishimoto, Susumu
CORPORATE SOURCE: Med. Sch., Osaka Univ., Osaka, 553, Japan
SOURCE: International Archives of Allergy and Applied Immunology (1985), 76(4), 324-30
CODEN: IAAAAM; ISSN: 0020-5915
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:

Suppression of anti-L-asparaginase (anti-A-ase) IgG and IgE antibody responses was achieved in Balb/c mice with polyethylene glycol (**PEG**) ***conjugated*** Escherichia coli A-ase. Following the administration of the mixture of A-ase and **PEG**-A-ase, antibody production to A-ase was reduced. ***PEG*** -A-ase administration prior to A-ase suppressed the primary and secondary responses to A-ase antibody. The suppression could be transferred to normal mice with spleen cells from A-ase tolerant mice. The cell transfer experiment showed that the suppression was caused by suppressor T cells. Since ***PEG*** -A-ase administration failed to suppress antibody response to ovalbumin, the suppression seemed to be A-ase specific. **PEG**-A-ase administration also suppressed the delayed type hypersensitivity reaction. IgG and IgE antibodies to **PEG** or **PEG**-A-ase were not detected in mice immunized with **PEG** or **PEG**-A-ase in the presence of Freund's complete **adjuvant** or Al(OH)3, resp.

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L13           0 L10 AND ANTIGEN

=> L10 and peptide
        304347 PEPTIDE
        221941 PEPTIDES
        389163 PEPTIDE
                 (PEPTIDE OR PEPTIDES)
L14           0 L10 AND PEPTIDE

=> L10 and immunogenic (W) composition
         12253 IMMUNOGENIC
             2 IMMUNOGENICS
         12255 IMMUNOGENIC
                 (IMMUNOGENIC OR IMMUNOGENICS)
        611998 COMPOSITION
        269025 COMPOSITIONS
        875959 COMPOSITION
                 (COMPOSITION OR COMPOSITIONS)
       1264283 COMPN
        505115 COMPNS
       1547006 COMPN
                 (COMPN OR COMPNS)
       1979579 COMPOSITION
                 (COMPOSITION OR COMPN)
           301 IMMUNOGENIC (W) COMPOSITION
L15          0 L10 AND IMMUNOGENIC (W) COMPOSITION

=> log off
```

L17 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:676535 CAPLUS
DOCUMENT NUMBER: 135:216018
TITLE: Improved poloxamer and poloxamine compositions for nucleic acid delivery
INVENTOR(S): Nicol, Francois; Wang, Jijun; Coleman, Michael; MacLauglin, Fiona; Rolland, Alain
PATENT ASSIGNEE(S): Valentis, Inc., USA
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001065911	A2	20010913	WO 2001-US6831	20010302
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001041958	A5	20010917	AU 2001-41958	20010302
JP 2003525613	T2	20030902	JP 2001-564578	20010302
BR 2001008959	A	20031014	BR 2001-8959	20010302
US 2003206910	A1	20031106	US 2002-234405	20020903
PRIORITY APPLN. INFO.:			US 2000-187236P P	20000303
			US 2000-242277P P	20001020
			WO 2001-US6831 W	20010302

ABSTRACT:
This invention relates to compns. and methods for the introduction of a nucleic acid mol. into a cell, preferably by a pulse voltage delivery method. In preferred embodiments, the compns. comprise protective interactive noncondensing polymers, including **poloxamers** 124, 188, 237, 338, and ***401*** and poloxamines (Tetronics) which enhance delivery of genes to muscle cells after their direct i.m. injections.

```
=> "Pluronic F 108" and antigen
          5060 "PLURONIC"
           289 "PLURONICS"
          5162 "PLURONIC"
                 ("PLURONIC" OR "PLURONICS")
        548044 "F"
         85481 "108"
           186 "PLURONIC F 108"
                 ("PLURONIC"(W)"F"(W)"108")
        248189 ANTIGEN
        197076 ANTIGENS
        307930 ANTIGEN
                 (ANTIGEN OR ANTIGENS)
L9           0 "PLURONIC F 108" AND ANTIGEN

=> " polyethylene-polypropylene glycolCN" or "Block
polyoxyethylene-polyoxypropylene"
        302621 "POLYETHYLENE"
         10478 "POLYETHYLENES"
        305768 "POLYETHYLENE"
                 ("POLYETHYLENE" OR "POLYETHYLENES")
        141209 "POLYPROPYLENE"
          1897 "POLYPROPYLENES"
        141413 "POLYPROPYLENE"
                 ("POLYPROPYLENE" OR "POLYPROPYLENES")
             0 "GLYCOLCN"
             0 " POLYETHYLENE-POLYPROPYLENE GLYCOLCN"
                 ("POLYETHYLENE"(W)"POLYPROPYLENE"(W)"GLYCOLCN")
        193395 "BLOCK"
         74456 "BLOCKS"
        247173 "BLOCK"
                 ("BLOCK" OR "BLOCKS")
         40732 "POLYOXYETHYLENE"
           578 "POLYOXYETHYLENES"
         40915 "POLYOXYETHYLENE"
                 ("POLYOXYETHYLENE" OR "POLYOXYETHYLENES")
          8685 "POLYOXYPROPYLENE"
           150 "POLYOXYPROPYLENES"
          8719 "POLYOXYPROPYLENE"
                 ("POLYOXYPROPYLENE" OR "POLYOXYPROPYLENES")
            55 "BLOCK POLYOXYETHYLENE-POLYOXYPROPYLENE"
                 ("BLOCK"(W)"POLYOXYETHYLENE"(W)"POLYOXYPROPYLENE")
L10         55 " POLYETHYLENE-POLYPROPYLENE GLYCOLCN" OR "BLOCK POLYOXYETHYLENE
               -POLYOXYPROPYLENE"

=> antigen and L10
        248189 ANTIGEN
        197076 ANTIGENS
        307930 ANTIGEN
                 (ANTIGEN OR ANTIGENS)
L11          0 ANTIGEN AND L10

=> peptide and L10
        304347 PEPTIDE
        221941 PEPTIDES
        389163 PEPTIDE
                 (PEPTIDE OR PEPTIDES)
L12          0 PEPTIDE AND L10

=> L10 and antigen
        248189 ANTIGEN
        197076 ANTIGENS
        307930 ANTIGEN
                 (ANTIGEN OR ANTIGENS)
```

```
=> L1 and antigen
        248189 ANTIGEN
        197076 ANTIGENS
        307930 ANTIGEN
                 (ANTIGEN OR ANTIGENS)
L3           0 L1 AND ANTIGEN

=> peptide and Li
        304347 PEPTIDE
        221941 PEPTIDES
        389163 PEPTIDE
                 (PEPTIDE OR PEPTIDES)
        179810 LI
           795 LIS
        180473 LI
                 (LI OR LIS)
L4        1440 PEPTIDE AND LI

=> L1 (l) Peptide
        304347 PEPTIDE
        221941 PEPTIDES
        389163 PEPTIDE
                 (PEPTIDE OR PEPTIDES)
L5           0 L1 (L) PEPTIDE

=> adjuvant and l1
         26028 ADJUVANT
         14291 ADJUVANTS
         32493 ADJUVANT
                 (ADJUVANT OR ADJUVANTS)
L6           0 ADJUVANT AND L1
```

```
=> Pluronic (L) poloxamers
          5060 PLURONIC
           289 PLURONICS
          5162 PLURONIC
                 (PLURONIC OR PLURONICS)
           149 POLOXAMERS
L1          25 PLURONIC (L) POLOXAMERS

=> structure and L1
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Some commands only work in certain files.  For example, the EXPAND
command can only be used to look at the index in a file which has an
index.  Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> MW and L1
         60346 MW
           428 MWS
         60559 MW
                 (MW OR MWS)
L2           0 MW AND L1
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L1 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:310684 CAPLUS
DOCUMENT NUMBER: 135:137963
TITLE: Interaction of Poloxamer block copolymers with cosolvents and surfactants
AUTHOR(S): Ivanova, R.; Alexandridis, P.; Lindman, B.
CORPORATE SOURCE: Physical Chemistry 1, Center for Chemistry and Chemical Engineering, Lund University, Lund, S-221 00, Swed.
SOURCE: Colloids and Surfaces, A: Physicochemical and Engineering Aspects (2001), 183-185, 41-53
CODEN: CPEAEH; ISSN: 0927-7757
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The interactions of poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) (PEO-PPO-PEO) block copolymers (**Poloxamers**) with cosolvents and surfactants are addressed here. Ternary isothermal (25°) systems of ***Pluronic*** F127 (Poloxamer 407) in the presence of H2O and polar H2O-miscible solvents (glycerol, propylene glycol or EtOH), a partially H2O-miscible solvent (glycerol triacetate), a nonionic surfactant (tetraethylene glycol monooctyl ether, C8(EO)4), an anionic surfactant (sodium dodecyl sulfate, SDS), and a cationic surfactant (cetyltrimethyl ammonium bromide, CTAB) were studied by phase behavior studies and small angle x-ray scattering (SAXS). A number of regions with different lyotropic liquid crystalline structure were identified in each ternary Poloxamer-H2O-cosolvent/surfactant system. For a given Poloxamer, the composition range over which a given self-assembled structure is stable varies according to the cosolvent/surfactant type (and properties). The effects that the different cosolvents or surfactants exhibit on the Poloxamer phase behavior are interpreted in terms of the preference of the cosolvent/surfactant mols. to locate in different domains of the PEO-PPO-PEO block copolymer self-assembly. Organic solvents, depending on their relative polarities, locate preferably in the PEO-rich or the PPO-rich domains of the microstructure. Some solvents (e.g. EtOH and glycerol triacetate) may show amphiphilic behavior and act as cosurfactants by preferably locating at the interface between the PEO-rich and the PPO-rich domains. The location of the solvents in the block copolymer assemblies is established by an anal. of the trends in the structure lattice spacing (obtained from SAXS) and the interfacial area per block copolymer mol.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
=> L1 and antigen
        248189 ANTIGEN
        197076 ANTIGENS
        307930 ANTIGEN
                  (ANTIGEN OR ANTIGENS)
L3           0 L1 AND ANTIGEN

=> peptide and Li
        304347 PEPTIDE
        221941 PEPTIDES
        389163 PEPTIDE
                  (PEPTIDE OR PEPTIDES)
        179810 LI
           795 LIS
        180473 LI
                  (LI OR LIS)
L4        1440 PEPTIDE AND LI

=> L1 (l) Peptide
        304347 PEPTIDE
        221941 PEPTIDES
        389163 PEPTIDE
                  (PEPTIDE OR PEPTIDES)
L5           0 L1 (L) PEPTIDE

=> adjuvant and l1
         26028 ADJUVANT
         14291 ADJUVANTS
         32493 ADJUVANT
                  (ADJUVANT OR ADJUVANTS)
L6           0 ADJUVANT AND L1

=> log off
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:n

=> L1 and 401
         6299 401
L7          2 L1 AND 401

=> DIS L7 1- HIT
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 5.71 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L7   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
AB   The invention is generally related to the field of formulating medicaments
     in association with a solid support.  Such formulations of photosensitizers,
     and their use in photodynamic therapy, are exemplified.  Block copolymers
     such as Poloxamers and Pluronics were screened for
     photosensitizer drug loading.
IT   106392-12-5, Poloxamer 401
     RL: MOA (Modifier or additive use); POF (Polymer in formulation); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (polyoxyalkylene block polymers as supports for photosensitizer
        formulations)

L7   ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
AB   The invention is generally related to the field of photodynamic therapy by
     use of photosensitizers and stabilized formulations of the
     photosensitizers.  These formulations may be used to deliver a
     photosensitizer as a pharmaceutical, agricultural, or industrial agent.
     The photosensitizer containing formulations and compns. of the invention
     comprise one or more block copolymers.  Furthermore, the invention relates
```

to processes for the production of, and application of, said formulations and compns. as photosensitizer drug delivery systems. Block copolymers such as **Poloxamers** and **Pluronics** were screened for photosensitizer drug loading.

IT 68335-15-9, Photofrin 106392-12-5, Poloxamer **401**
129474-43-7, BPD-MB 129497-78-5, Verteporfin 215808-49-4, A-EA6
215808-50-7, B-EA6
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyoxyalkylene block copolymers for drug delivery systems for photodynamic therapy)

STRUCTURE FILE UPDATES: 11 FEB 2004 HIGHEST RN 649538-27-2
DICTIONARY FILE UPDATES: 11 FEB 2004 HIGHEST RN 649538-27-2

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> S 106392-12-5/RN

L8 1 106392-12-5/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L8 RN IN 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 1.06 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
RN **106392-12-5** REGISTRY
IN Oxirane, methyl-, polymer with oxirane, block (9CI)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L8 RN IN 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 1.06 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
RN **106392-12-5** REGISTRY
IN Oxirane, methyl-, polymer with oxirane, block (9CI)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> DIS L8 1 RN

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
RN **106392-12-5** REGISTRY

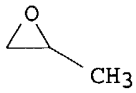
=> DIS L8 1 IDE
THE ESTIMATED COST FOR THIS REQUEST IS 1.77 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
RN **106392-12-5** REGISTRY
CN Oxirane, methyl-, polymer with oxirane, block (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Adeka 25R1
CN Adeka 25R2
CN Adeka L 61
CN Adeka Pluronic F 108
CN Antarox 17R2
CN Antarox 17R4
CN Antarox 25R2
CN Antarox B 25
CN Antarox F 108
CN Antarox F 68
CN Antarox F 88
CN Antarox F 88FL
CN Antarox L 61
CN Antarox L 64
CN Antarox L 72
CN Antarox P 104
CN Antarox P 84
CN Antarox SC 138
CN Arco Polyol R 2633
CN Arcol E 351
CN B 053
CN BASF-L 101
CN Block polyethylene-polypropylene glycol
CN Block polyoxyethylene-polyoxypropylene
CN Breox BL 19-10
CN Cirrasol ALN-WS
CN Conion AEP 1220
CN Crisvon Assistor SD 14
CN CRL 1005
CN CRL 1029
CN CRL 1190
CN CRL 1605
CN CRL 8131
CN CRL 8142
CN D 500
CN D 500 (polyglycol)
CN Daltocel F 460
CN DC 100
CN Dehypon KE 3557
CN Detalan
CN DO 97
CN Dowfax 30C05
CN ED 56
CN Empilan P 7068
CN Emulgen PP 230
CN EP 3028
CN Epan 450
CN Epan 485
CN Epan 680

CN Epan 710
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 11104-97-5, 163516-02-7, 124057-62-1, 121089-00-7, 96639-37-1, 96958-14-4, 99040-06-9, 106138-19-6, 113441-83-1, 115742-90-0, 108688-61-5, 108688-62-6, 37349-41-0, 70226-19-6, 72231-62-0, 77108-15-7, 80456-04-8, 144638-32-4, 83589-65-5, 86904-45-2, 106899-85-8, 107498-07-7, 108340-62-1, 178463-44-0, 188815-93-2, 194165-56-5, 211389-05-8, 351002-57-8, 355134-17-7, 406160-61-0
MF (C3 H6 O . C2 H4 O)x
CI PMS, COM
PCT Polyether, Polyether formed
SR CA
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGU, IMSDRUGNEWS, IMSRESEARCH, IPA, MEDLINE, MRCK*, PDLCOM*, PHAR, PIRA, PROMT, RTECS*, TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)

CM 1

CRN 75-56-9
CMF C3 H6 O



CM 2

CRN 75-21-8
CMF C2 H4 O

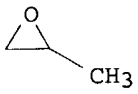
8079 REFERENCES IN FILE CA (1907 TO DATE)
786 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
8120 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> DIS L8 1 SQIDE
THE ESTIMATED COST FOR THIS REQUEST IS 5.92 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:N
REQUEST CANCELED

=> DIS L8 1 SAM

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
IN Oxirane, methyl-, polymer with oxirane, block (9CI)
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT
MF (C3 H6 O . C2 H4 O)x
CI PMS, COM

CM 1



CM 2

```
=> copolymer and antigen
L1        1626 COPOLYMER AND ANTIGEN

=> copolymer (s) antigen
L2         536 COPOLYMER (S) ANTIGEN

=> adjuvant (s) L2
L3          25 ADJUVANT (S) L2

=> pluronic and L2
L4           7 PLURONIC AND L2

=> CpG and L2
L5           1 CPG AND L2

=> chirosan (l) L2
L6           0 CHIROSAN (L) L2

=> Chtosan (L) L2
L7           0 CHTOSAN (L) L2

=> Chitosan (L) L2
L8           1 CHITOSAN (L) L2

=> adjuvant (L) L2
L9          49 ADJUVANT (L) L2

=> adjuvant (S) L2
L10         25 ADJUVANT (S) L2

=> D L10 IBIB TI SO AU ABS 1-25
```

L10 ANSWER 21 OF 25 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1995:157889 BIOSIS
DOCUMENT NUMBER: PREV199598172189
TITLE: Induction of long-lasting immunity to Plasmodium yoelii malaria with whole blood-stage **antigens** and **copolymer adjuvants**.
AUTHOR(S): Hunter, Robert L. [Reprint author]; Kidd, Marybeth R.; Olsen, Margaret R.; Patterson, Pamela S.; Lal, Altaf A.
CORPORATE SOURCE: Dep. Pathol. Lab., Emory Univ. Sch. Med., 762 WMB, 1639 Pierce Drive, Atlanta, GA 30322, USA
SOURCE: Journal of Immunology, (1995) Vol. 154, No. 4, pp. 1762-1769.
CODEN: JOIMA3. ISSN: 0022-1767.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 11 Apr 1995
Last Updated on STN: 11 Apr 1995

TI Induction of long-lasting immunity to Plasmodium yoelii malaria with whole blood-stage **antigens** and **copolymer adjuvants**

SO Journal of Immunology, (1995) Vol. 154, No. 4, pp. 1762-1769.
CODEN: JOIMA3. ISSN: 0022-1767.

AU Hunter, Robert L. [Reprint author]; Kidd, Marybeth R.; Olsen, Margaret R.; Patterson, Pamela S.; Lal, Altaf A.

AB We previously reported that protection of mice from nonlethal Plasmodium yoelii malaria by immunization with whole killed blood-stage parasites was dependent on the adjuvant and that adjuvants influenced both the specificity and isotype of Ab. Additional studies with the most effective formulations were undertaken to better define the protective responses and 100% protection from lethal P. yoelii malaria was produced by three immunizations with Ag in copolymer P1004 and detoxified RaLPS as adjuvants and 83% protection was induced by a single immunization. The protection lasted for 9 mo and was associated with an anamnestic rise in Ab titer of the IgG2a isotype during the challenge infection. Passive immunization with Ab from animals that had been immunized and challenged transferred sterile immunity. Splenectomy reduced, but did not abolish, protection. These data suggest that the effective Ab is directed against labile epitopes on the surface of blood-stage parasites. The vaccines primed animals for production of such Ab, but its synthesis was efficiently induced only by challenge with live organisms

L10 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1988:485524 CAPLUS
DOCUMENT NUMBER: 109:85524
TITLE: Modulation of **antigen** presentation and host mediators by block **copolymer adjuvants**
AUTHOR(S): Hunter, Robert L.; Bennett, Beth
CORPORATE SOURCE: Dep. Pathol., Emory Univ., Atlanta, GA, 30322, USA
SOURCE: Progress in Leukocyte Biology (1987), 6(Immunopharmacol. Infect. Dis.), 181-90
CODEN: PLBIE5; ISSN: 0884-6790
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
TI Modulation of **antigen** presentation and host mediators by block **copolymer adjuvants**
SO Progress in Leukocyte Biology (1987), 6(Immunopharmacol. Infect. Dis.), 181-90
CODEN: PLBIE5; ISSN: 0884-6790
AU Hunter, Robert L.; Bennett, Beth
AB A review with 5 refs. It is suggested that the **adjuvant** activity of block **copolymers** is due to their adhesive properties which had mol. (especially **antigens**) together for effective immune interactions

L10 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1989:230023 CAPLUS
DOCUMENT NUMBER: 110:230023
TITLE: Modified ethylene oxide-propylene oxide block copolymers adjuvants
INVENTOR(S): Rijke, Eric Onno
PATENT ASSIGNEE(S): AKZO N. V., Neth.
SOURCE: Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 283085	A1	19880921	EP 1988-200443	19880309
EP 283085	B1	19921111		
R: BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
ZA 8801694	A	19881026	ZA 1988-1694	19880309
ES 2052685	T3	19940716	ES 1988-200443	19880309
DK 8801414	A	19880918	DK 1988-1414	19880315
DK 167849	B1	19931227		
JP 63253032	A2	19881020	JP 1988-63073	19880316
JP 2562827	B2	19961211		
HU 47224	A2	19890228	HU 1988-1255	19880316
HU 202119	B	19910228		

PRIORITY APPLN. INFO.: NL 1987-629 19870317
TI Modified ethylene oxide-propylene oxide block copolymers adjuvants
SO Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
IN Rijke, Eric Onno
AB Addition of acrylic acid polymers increases the potency of ethylene oxide-propylene oxide block copolymer (I) adjuvant in vaccines. Mice injected with 0.1 mL inactivated pseudorabies virus-based vaccine containing 4.8% I (Pluronic L-121) and 0.15% Carbopol 934 (II) exhibited antibody response 14.0 (mean ELISA titer) after 16 wk, compared with 9.9 without adjuvant, 11.1 with I alone, and 11.7 with II alone.

L10 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:524941 CAPLUS
DOCUMENT NUMBER: 119:124941
TITLE: Targeting proteins to antigen-presenting cells and induction of cytokines as a basis for adjuvant activity
AUTHOR(S): Allison, Anthony C.; Byars, Noelene E.
CORPORATE SOURCE: Inst. Immunol. Biol. Sci., Syntex Res., Palo Alto, CA, 94304, USA
SOURCE: NATO ASI Series, Series A: Life Sciences (1992), 238(Targeting of Drugs 3), 69-80
CODEN: NALSDJ; ISSN: 0258-1213
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
TI Targeting proteins to antigen-presenting cells and induction of cytokines as a basis for adjuvant activity
SO NATO ASI Series, Series A: Life Sciences (1992), 238(Targeting of Drugs 3), 69-80
CODEN: NALSDJ; ISSN: 0258-1213
AU Allison, Anthony C.; Byars, Noelene E.
AB A review with 39 refs. Muramyl dipeptide analogs, squalane polyoxyethylene-polypropylene **copolymer** emulsion, **antigen**-presenting cells, Syntex **adjuvant** formulation (SAF) in laboratory animals, and uses of SAF in vaccines are discussed.

L10 ANSWER 12 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:708281 CAPLUS
DOCUMENT NUMBER: 121:308281
TITLE: Vaccines against diseases caused by enteropathogenic organisms using antigens encapsulated within biodegradable-biocompatible microspheres
INVENTOR(S): Reid, Robert H.; Boedeker, Edgar C.
PATENT ASSIGNEE(S): United States Dept. of the Army, USA
SOURCE: PCT Int. Appl., 215 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 15
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9421289	A1	19940929	WO 1994-US2536	19940309
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9464001	A1	19941011	AU 1994-64001	19940309
EP 681478	A1	19951115	EP 1994-911515	19940309
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				

PRIORITY APPLN. INFO.: US 1993-34949 A 19930322
WO 1994-US2536 W 19940309

TI Vaccines against diseases caused by enteropathogenic organisms using antigens encapsulated within biodegradable-biocompatible microspheres
SO PCT Int. Appl., 215 pp.
CODEN: PIXXD2
IN Reid, Robert H.; Boedeker, Edgar C.
AB Oral, parenteral, and intestinal vaccines are provided which comprise an **antigen**, such as colony factor **antigen** (CFA/II) or hepatitis B surface **antigen**, and an optional **adjuvant** enclosed within microspheres of biodegradable, biocompatible DL-lactide/glycolide **copolymer**. The microspheres are of a size range (.apprx.1 ng or 10 μm) specifically taken up by gut-associated lymphoid tissue (primarily Peyer's patches). They addnl. contain AF/R1 pili of Escherichia coli, which promote attachment to the intestinal mucosa and lymphocyte proliferation. Inclusion of antigen CFA/I from pili of enterotoxigenic E. coli induces immunity to this protein and homologous antigens CS1, CFA/II, and CFA/IV and thereby prevents attachment of pathogens containing these antigens. The complete amino acid sequence of CFA/I was revised, and the immunogenicity of peptides derived from CFA/I and AF/R1 was determined in monkeys to identify T- and B-cell epitopes for use in vaccines.

L10 ANSWER 11 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:362854 CAPLUS
DOCUMENT NUMBER: 122:142147
TITLE: Induction of long-lasting immunity to Plasmodium yoelii malaria with whole blood-stage **antigens** and **copolymer adjuvants**
AUTHOR(S): Hunter, Robert L.; Kidd, Marybeth R.; Olsen, Margaret R.; Patterson, Pamela S.; Lal, Altaf A.
CORPORATE SOURCE: Dep. Pathol. Lab. Med., Emory Univ., Atlanta, GA, 30322, USA
SOURCE: Journal of Immunology (1995), 154(4), 1762-9
CODEN: JOIMA3; ISSN: 0022-1767
PUBLISHER: American Association of Immunologists
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Induction of long-lasting immunity to Plasmodium yoelii malaria with whole blood-stage **antigens** and **copolymer adjuvants**

SO Journal of Immunology (1995), 154(4), 1762-9
CODEN: JOIMA3; ISSN: 0022-1767

AU Hunter, Robert L.; Kidd, Marybeth R.; Olsen, Margaret R.; Patterson, Pamela S.; Lal, Altaf A.

AB We previously reported that protection of mice from nonlethal Plasmodium yoelii malaria by immunization with whole killed blood-stage parasites was dependent on the adjuvant and that adjuvants influenced both the specificity and isotype of Ab. Addnl. studies with the most effective formulations were undertaken to better define the protective responses and 100% protection from lethal P. yoelii malaria was produced by three immunizations with Ag in copolymer P1004 and detoxified RaLPS as adjuvants and 83% protection was induced by a single immunization. The protection lasted for 9 mo and was associated with an anamnestic rise in Ab titer of the IgG2a isotype during the challenge infection. Passive immunization with Ab from animals that had been immunized and challenged transferred sterile immunity. Splenectomy reduced, but did not abolish, protection. These data suggest that the effective Ab is directed against labile epitopes on the surface of blood-stage parasites. The vaccines primed animals for production of such Ab, but its synthesis was efficiently induced only by challenge with live organisms.

NUMBER: 123:40954
TITLE: Microencapsulation of antigens in lactide/glycolide copolymer (PLGA) for use as vaccines
INVENTOR(S): Cleland, Jeffrey L.; Lim, Amy; Powell, Michael Frank
PATENT ASSIGNEE(S): Genentech, Inc., USA
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9511010	A1	19950427	WO 1994-US11753	19941013
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2172509	AA	19950427	CA 1994-2172509	19941013
AU 9479807	A1	19950508	AU 1994-79807	19941013
EP 724432	A1	19960807	EP 1994-930794	19941013
EP 724432	B1	20020918		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09504027	T2	19970422	JP 1994-512118	19941013
AT 224184	E	20021015	AT 1994-930794	19941013
ES 2184769	T3	20030416	ES 1994-930794	19941013

PRIORITY APPLN. INFO.:
US 1993-141796 A 19931022
US 1993-143555 A 19931025
WO 1994-US11753 W 19941013

TI Microencapsulation of antigens in lactide/glycolide copolymer (PLGA) for use as vaccines

SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2

IN Cleland, Jeffrey L.; Lim, Amy; Powell, Michael Frank

AB Antigens are encapsulated in PLGA microspheres for use as vaccines. The weight ratio of lactide to glycolide is (100:1)-(1:100), the inherent viscosity of the polymer is 0.1-1.2 dL/g, and the median diameter of the microspheres is 20-100 mm. The antigen is released in a triphasic pattern: 0.5-95% is released in an initial burst, 0-50% is released over a period of 1-180 days, and the remainder is released in a 2nd burst after 1-180 days. Such microspheres can also contain adjuvants, e.g. QS 21. Mixts. of microspheres are provided which release antigen at desired intervals to provide boosts with antigen. The time until 2nd burst could be manipulated by varying the monomer ratio in the polymer. Microencapsulation of recombinant HIV glycoprotein gp120 did not alter its conformation, as shown by its degree of aggregation and hydrophobicity.

L10 ANSWER 8 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:432159 CAPLUS
DOCUMENT NUMBER: 125:112246
TITLE: Nonionic block copolymer adjuvants: Formulations for one-shot and oral immunization
AUTHOR(S): Hunter, Robert
CORPORATE SOURCE: Department Pathology, Emory University, Atlanta, GA, USA
SOURCE: Recombinant and Synthetic Vaccines (1994), 463-470. Editor(s): Talwar, G. P.; Rao, Kanury V. S.; Chauhan, V. S. Narosa: New Delhi, India. CODEN: 63BLAX
DOCUMENT TYPE: Conference
LANGUAGE: English

TI Nonionic block copolymer adjuvants: Formulations for one-shot and oral immunization

SO Recombinant and Synthetic Vaccines (1994), 463-470. Editor(s): Talwar, G. P.; Rao, Kanury V. S.; Chauhan, V. S. Publisher: Narosa, New Delhi, India. CODEN: 63BLAX

AU Hunter, Robert

AB Nonionic block copolymer adjuvants have been developed primarily for the induction of high-titer, long-lasting antibody responses. Recent data demonstrates that they also control the specificity and isotype of antibody and that these parameters critically influence the generation of protective immune responses. Addnl., **copolymer adjuvants** can produce effective single shot vaccines using several **antigens** and formulations. Finally, copolymer based multiple emulsions may be effective oral vaccine delivery vehicles for inducing long-lasting secretory and systemic antibody responses.

L10 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:757986 CAPLUS
DOCUMENT NUMBER: 126:46004
TITLE: Influence of adjuvants on murine immune responses against the C-terminal 19 kDa fragment of Plasmodium vivax merozoite surface protein-1 (MSP-1)
AUTHOR(S): Yang, Chunfu; Collins, William E.; Xiao, Lihua; Patternson, Pamela S.; Reed, Robb C.; Hunter, Robert L.; Kaslow, David C.; Lal, Altaf A.
CORPORATE SOURCE: Division of Parasitic Diseases, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Public Health Service, United States Department of Health and Human Service, Atlanta, GA, 30341, USA
SOURCE: Parasite Immunology (1996), 18(11), 547-558
CODEN: PAIMD8; ISSN: 0141-9838
PUBLISHER: Blackwell
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Influence of adjuvants on murine immune responses against the C-terminal 19 kDa fragment of Plasmodium vivax merozoite surface protein-1 (MSP-1)

SO Parasite Immunology (1996), 18(11), 547-558
CODEN: PAIMD8; ISSN: 0141-9838

AU Yang, Chunfu; Collins, William E.; Xiao, Lihua; Patternson, Pamela S.; Reed, Robb C.; Hunter, Robert L.; Kaslow, David C.; Lal, Altaf A.

AB The immunogenicity of a yeast-expressed 19 kDa fragment of P. vivax MSP-1 in the presence of different adjuvant formulations was evaluated. ICR mice were immunized with the 19 kDa **antigen**, using Freund's, alum, and block **copolymer** P1005 in water-in-oil (W/o) or oil-in-water (O/W) emulsions with or without detoxified lipopolysaccharide (RaLPS) as **adjuvants**. Five weeks following immunization with the antigen, mice were boosted with asexual blood-stage antigens. Three weeks after the last immunization with the 19 kDa antigen, mice from the Freund's group and most groups that received P1005 as adjuvant had higher total IgG titers than those that received alum as adjuvant or antigen alone. Antibody responses after the antigen immunization were predominantly of the IgG1 isotype, but mice in the Freund's and P1005 (W/O or O/W emulsion with or without RaLPS) groups also had high titers of IgG2a and IgG2b. Antibody titers against merozoites increased in all groups after the parasite antigen boost. IgG2a levels in the group that received **antigen** in P1005 plus RaLPS in the W/O emulsion were higher than those receiving Freund's, alum or the other **copolymer adjuvants**. The high IgG2a titers in this group were associated with reduced IL-10 prodn

osmotic force data with data on the distance (spacing) between assemblies in the ordered block copolymer samples (determined via small-angle X-ray scattering), allowed us to construct a force vs distance curve, which reveals that interactions occur at two levels, that of the PEO coil and that of the PEO segment.

REFERENCE COUNT: 80 THERE ARE 80 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 2 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:912966 CAPLUS
DOCUMENT NUMBER: 139:385864
TITLE: Hair conditioning compositions containing block polyoxyethylene oxide-polypropylene oxide copolymers
INVENTOR(S): Derici, Leo; Jenkins, Paul David; Murray, Andrew Malcolm; Shaw, Neil Scott
PATENT ASSIGNEE(S): Unilever P.L.C., UK; Unilever N.V.; Hindustan Lever Limited
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003094873	A1	20031120	WO 2003-EP4238	20030423

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2002-10791 A 20020510
GB 2002-28879 A 20021211

ABSTRACT:
An aqueous hair conditioner composition comprising: a) a cationic conditioning surfactant, b) discrete, dispersed droplets comprising a water-insol. conditioning oil and c) a block copolymer with a mean mol. weight of 1000 unified amu or more, comprising polyethylene oxide and polypropylene oxide blocks selected from the group consisting of **poloxamers**. A composition contained behenyl trimethylammonium chloride, cetearyl alc., preservative, silicone and a Poloxamer such as **Pluronic** L44.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:666638 CAPLUS
DOCUMENT NUMBER: 140:60282
TITLE: Water activity in polyoxyethylene-b-polyoxypropylene (poloxamer) aqueous solutions and gels
AUTHOR(S): Gu, Zhiyong; Alexandridis, Paschalis
CORPORATE SOURCE: Department of Chemical Engineering, University at Buffalo, The State University of New York, Buffalo, NY, 14260-4200, USA
SOURCE: Polymeric Materials Science and Engineering (2003), 89, 238-239

CODEN: PMSEDG; ISSN: 0743-0515
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
ABSTRACT:
Water activity and chemical potential values in ordered (lyotropic liquid crystalline)
assemblies formed by hydrated polyoxyethylene-b-polyoxypropylene block copolymers (**Poloxamers** or **Pluronics**) were determined using the osmotic stress method. The water chemical potential (absolute value) of Poloxamer solns. and gels increases exponentially with an increase of Poloxamer concentration and reveals mol. interactions at different hydration levels. The water activity obtained from Poloxamer solns. and gels was fitted well by the Flory-Huggins equation up to 70 wt% Poloxamer using an interaction parameter, chi, that represents interactions between the PEO segments and water. Further, chi was calculated as a function of Poloxamer concentration from the exptl. data using the
Flory-Huggins equation. The increase of chi with an increase of Poloxamer concentration indicates that water becomes a worse solvent for **Poloxamers**. Finally, the work of hydration/dehydration was estimated within each ordered phase and for the phase transitions that take place between different ordered structures of Poloxamer gels.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 4 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:636542 CAPLUS
TITLE: Water activity in polyoxyethylene-b-polyoxypropylene (Poloxamer) aqueous solutions and gels
AUTHOR(S): Gu, Zhiyong; Alexandridis, Paschalis
CORPORATE SOURCE: Department of Chemical Engineering, University at Buffalo - The State University of New York, Buffalo, NY, 14260-4200, USA
SOURCE: Abstracts of Papers, 226th ACS National Meeting, New York, NY, United States, September 7-11, 2003 (2003), PMSE-159. American Chemical Society: Washington, D. C.
CODEN: 69EKY9
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English
ABSTRACT:
Water activity and chemical potential values in ordered (lyotropic liquid crystalline)
assemblies formed by hydrated polyoxyethylene-b-polyoxypropylene block copolymers (**Poloxamers** or **Pluronics**) have been determined using the osmotic stress method. The water chemical potential (absolute value) of Poloxamer
solns. and gels increases exponentially with an increase of Poloxamer concentration and reveals mol. interactions at different hydration levels. The water activity obtained from Poloxamer solns. and gels was fitted well by the Flory-Huggins equation up to 70 wt% Poloxamer using an interaction parameter, chi, that represents interactions between the PEO segments and water. Futher, chi was calculated as a function of Poloxamer concentration from the exptl. data using the
Flory-Huggins equation. The increase of chi with an increase of Poloxamer concentration indicates that water becomes a worse solvent for **Poloxamers**. Finally, the work of hydration/dehydration was estimated within each ordered phase and for the phase transitions that take place between different ordered structures of Poloxamer gels.

L1 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:362396 CAPLUS

DOCUMENT NUMBER: 137:130234
TITLE: Effects of Poloxamer Polydispersity on Micellization in Water
AUTHOR(S): Hvidt, Soren; Trandum, Christa; Batsberg, Walther
CORPORATE SOURCE: Department of Chemistry, Roskilde University, Roskilde, DK-4000, Den.
SOURCE: Journal of Colloid and Interface Science (2002), 250(1), 243-250
CODEN: JCISA5; ISSN: 0021-9797
PUBLISHER: Elsevier Science
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The poloxamer 284 (**Pluronic** P94) is a triblock copolymer of poly(ethylene oxide) and poly(propylene oxide). P94 and fractions of P94 obtained after centrifugation at temps. where solns. contain both dissolved unimers and micelles have been investigated by differential scanning calorimetry, mass spectrometry, and NMR. The results show that the P94 sample is heterogeneous with respect to both chemical composition and molar mass. The first micelles formed, when the temperature is increased, contain **poloxamers** with a significantly higher propylene oxide content and a higher molar mass in agreement with theor. predictions. The characteristic temps. of micellization, sphere-to-rod, and phase separation transitions observed in thermograms are influenced by polydispersity, which results in broader transitions.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:89801 CAPLUS
DOCUMENT NUMBER: 136:139657
TITLE: Dental compositions containing poloxamers
INVENTOR(S): Guan, Yue Hugh; Lilley, Terence Henry
PATENT ASSIGNEE(S): The Boots Company PLC, UK; University of Sheffield
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002007691	A2	20020131	WO 2001-EP8606	20010725
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1355620	A2	20031029	EP 2001-978267	20010725
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003191209	A1	20031009	US 2003-333692	20030602

PRIORITY APPLN. INFO.:
GB 2000-18227 A 20000726
GB 2001-8815 A 20010409
WO 2001-EP8606 W 20010725

ABSTRACT:
Compns. for inhibiting the adherence and formation of plaque and/or stains on

the teeth contain two **poloxamers** selected from a first group of ***poloxamers*** having a m.p. in the range of 48-58° and having an HLB value in the range of 22-29 and a second group of **poloxamers** having a m.p. in the range of 27-35° and having an HLB value in the range of 8-17. The **poloxamers** are selected from the same or different groups. For example, an anti-adherent toothpaste was prepared containing (by weight) sorbitol (70% solution) 20.00%, hydrated silica abrasive 5.00%, hydrated silica thickener 9.72%, flavor 0.91%, Poloxamer (**Pluronic** P123) 5%, Poloxamer (**Pluronic** F77) 5%, sodium monofluorophosphate 0.80%, sodium saccharin 0.26%, titanium dioxide 0.5%, sodium CM-cellulose 0.8%, sodium lauryl sulfate 0.2%, and water up to 100%.

L1 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:833129 CAPLUS
DOCUMENT NUMBER: 135:362608
TITLE: Polyoxyalkylene block polymers as supports for photosensitizer formulations
INVENTOR(S): Chowdhary, Rubinah Kausar; Dolphin, David H.
PATENT ASSIGNEE(S): The University of British Columbia, Can.
SOURCE: PCT Int. Appl., 102 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085213	A2	20011115	WO 2001-CA667	20010508
WO 2001085213	A3	20020801		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002061330	A1	20020523	US 2001-851606	20010508

PRIORITY APPLN. INFO.: US 2000-202640P P 20000508
ABSTRACT:
The invention is generally related to the field of formulating medicaments in association with a solid support. Such formulations of photosensitizers, and their use in photodynamic therapy, are exemplified. Block copolymers such as ***Poloxamers*** and **Pluronics** were screened for photosensitizer drug loading.

L1 ANSWER 8 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:833128 CAPLUS
DOCUMENT NUMBER: 135:376748
TITLE: Polyoxyalkylene block copolymers for drug delivery systems for photodynamic therapy
INVENTOR(S): Chowdhary, Rubinah Kausar; Dolphin, David H.
PATENT ASSIGNEE(S): The University of British Columbia, Can.
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085212	A2	20011115	WO 2001-CA637	20010508
WO 2001085212	A3	20020808		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002155089	A1	20021024	US 2001-851641	20010508

PRIORITY APPLN. INFO.: US 2000-202641P P 20000508

ABSTRACT:
The invention is generally related to the field of photodynamic therapy by use of photosensitizers and stabilized formulations of the photosensitizers. These formulations may be used to deliver a photosensitizer as a pharmaceutical, agricultural, or industrial agent. The photosensitizer containing formulations and compns. of the invention comprise one or more block copolymers. Furthermore, the invention relates to processes for the production of, and application of, said formulations and compns. as photosensitizer drug delivery systems. Block copolymers such as **Poloxamers** and **Pluronics** were screened for photosensitizer drug loading.

L1 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2001:310684 CAPLUS
DOCUMENT NUMBER:	135:137963
TITLE:	Interaction of Poloxamer block copolymers with cosolvents and surfactants
AUTHOR(S):	Ivanova, R.; Alexandridis, P.; Lindman, B.
CORPORATE SOURCE:	Physical Chemistry 1, Center for Chemistry and Chemical Engineering, Lund University, Lund, S-221 00, Swed.
SOURCE:	Colloids and Surfaces, A: Physicochemical and Engineering Aspects (2001), 183-185, 41-53 CODEN: CPEAEH; ISSN: 0927-7757
PUBLISHER:	Elsevier Science B.V.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

ABSTRACT:
The interactions of poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) (PEO-PPO-PEO) block copolymers (**Poloxamers**) with cosolvents and surfactants are addressed here. Ternary isothermal (25°) systems of ***Pluronic*** F127 (Poloxamer 407) in the presence of H2O and polar H2O-miscible solvents (glycerol, propylene glycol or EtOH), a partially H2O-miscible solvent (glycerol triacetate), a nonionic surfactant (tetraethylene glycol monooctyl ether, C8(EO)4), an anionic surfactant (sodium dodecyl sulfate, SDS), and a cationic surfactant (cetyltrimethyl ammonium bromide, CTAB) were studied by phase behavior studies and small angle x-ray scattering (SAXS). A number of regions with different lyotropic liquid crystalline structure were identified in each ternary Poloxamer-H2O-cosolvent/surfactant system. For a given Poloxamer, the composition range over which a given self-assembled structure is stable varies according to the cosolvent/surfactant type (and properties). The effects that the different cosolvents or surfactants exhibit on the Poloxamer phase behavior are interpreted in terms of the preference of the cosolvent/surfactant mols. to locate in different domains of the PEO-PPO-PEO block copolymer self-assembly. Organic solvents, depending on their relative polarities, locate preferably in the PEO-rich or the PPO-rich domains of the microstructure. Some solvents (e.g. EtOH and glycerol triacetate) may show amphiphilic behavior and act as cosurfactants by preferably locating at the interface between the PEO-rich and the PPO-rich

domains. The location of the solvents in the block copolymer assemblies is established by an anal. of the trends in the structure lattice spacing (obtained from SAXS) and the interfacial area per block copolymer mol.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 10 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:398111 CAPLUS
DOCUMENT NUMBER: 133:168257
TITLE: A combination of poloxamers increases gene expression of plasmid DNA in skeletal muscle
AUTHOR(S): Lemieux, P.; Guerin, N.; Paradis, G.; Proulx, R.; Chistyakova, L.; Kabanov, A.; Alakhov, V.
CORPORATE SOURCE: Supratek Pharma Inc., Laval, QC, H7V 1B7, Can.
SOURCE: Gene Therapy (2000), 7(11), 986-991
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
I.m. administration of plasmid DNA is a promising strategy to express therapeutic genes, however, it is limited by a relatively low level of gene expression. We report here that a non-ionic carrier, SP1017, composed of two amphiphilic block copolymers, **pluronics** L61 and F127, also known as ***poloxamers*** , significantly increases i.m. expression of plasmid DNA. Two reporter genes, luciferase and β-galactosidase, and one therapeutic gene, erythropoietin, were injected i.m. with and without SP1017 into C57BI/6 and Balb/C mice and Sprague-Dawley rats. SP1017 increased gene expression by about 10-fold and maintained higher gene expression compared with naked DNA. Comparison of SP1017 with polyvinyl pyrrolidone (PVP) showed that SP1017 exhibited a significantly higher efficacy and its optimal dose was 500-fold lower. Expts. with β-galactosidase using X-gal staining suggested that SP1017 considerably increased plasmid DNA diffusion through the tissue. SP1017 also improved expression of the erythropoietin gene leading to an increase in its systemic level and hematocrits. Previous toxicity studies have suggested that SP1017 has over a 1000-fold safety margin. **Poloxamers** used in SP1017 are listed in the US Pharmacopeia as inactive excipients and are widely used in a variety of clin. applications. We believe that the described system constitutes a simple and efficient gene transfer method to achieve local or systemic production of therapeutic proteins.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 11 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:577559 CAPLUS
DOCUMENT NUMBER: 131:299984
TITLE: A SANS Investigation of Reverse (Water-in-Oil) Micelles of Amphiphilic Block Copolymers
AUTHOR(S): Svensson, Birgitta; Olsson, Ulf; Alexandridis, Paschalis; Mortensen, Kell
CORPORATE SOURCE: Physical Chemistry 1 Center for Chemistry and Chemical Engineering, Lund University, Lund, SE-221 00, Swed.
SOURCE: Macromolecules (1999), 32(20), 6725-6733
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) (PEO-PPO-PEO) block copolymers, com. available as **Poloxamers** or **Pluronics** , are unique in forming ordered cubic phases consisting of reverse (water-in-oil) micelles. We study the microstructure (form and dimension) as

the reverse micelles order (from a micellar solution to a cubic lattice) with increasing block copolymer volume fraction and with increasing block copolymer mol. weight The technique we used was small-angle neutron scattering (SANS) with solvent contrast variation. We selected four block copolymers with known phase behavior in water and p-xylene (**Pluronics** L44, L64, P84, and P104, all with the same PEO/PPO ratio and mol. formula (EO)x(PO)y(EO)x, where x = 10, 13, 19, 27 and y = 23, 30, 43, 61, resp.) and worked in a dilution line with fixed water to copolymer content (1.2 mol of water per mol of EO). The temperature effect (22 and 45 °C) was also studied. The scattering behavior indicates that the micelles are approx. spherical but polydisperse. We used a two-sphere model where we assumed that all the PEO and the water are in the core of the micelle and that PPO forms a p-xylene-solvated shell. The micellar radius then depends on the mol. weight and the temperature and is approx. constant with concentration The structure of the reverse micelles is also compared to that of normal (oil-in-water) micelles.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 12 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:285986 CAPLUS
DOCUMENT NUMBER: 130:329051
TITLE: Dental products to treat and prevent periodontal disease
INVENTOR(S): Cutler, Edward T.
PATENT ASSIGNEE(S): Squigle, Inc., USA
SOURCE: U.S., 7 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5900230	A	19990504	US 1997-912502	19970818
PRIORITY APPLN. INFO.:			US 1997-912502	19970818

ABSTRACT:
The dental products of this invention can be used to treat and prevent periodontal disease. They contain a synergistic mixture of **poloxamers**, and/or poloxamer congeners, plus xylitol. These active ingredients are present in specific amts. It is also necessary to eliminate all irritants from the dental products of this invention. The dental products of this invention include dentifrices, powders, granules, disintegrable tablets, and mouthwashes, lozenges, and chewing gums. A mouthwash for the prevention of periodontal disease contained water 65.49, xylitol 32.1, **Pluronic** F127 1, cellulose gum (Aqualon 7MF) 0.24, Methocel K15M Premium 0.12, flavors 0.9, preservatives 0.1, and NaF 0.05 %.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:270326 CAPLUS
DOCUMENT NUMBER: 129:28524
TITLE: A Record Nine Different Phases (Four Cubic, Two Hexagonal, and One Lamellar Lyotropic Liquid Crystalline and Two Micellar Solutions) in a Ternary Isothermal System of an Amphiphilic Block Copolymer and Selective Solvents (Water and Oil)
AUTHOR(S): Alexandridis, Paschalis; Olsson, Ulf; Lindman, Bjoern
CORPORATE SOURCE: Physical Chemistry 1 Center for Chemistry and Chemical Engineering, Lund University, Lund, S-221 00, Swed.

SOURCE: Langmuir (1998), 14(10), 2627-2638
CODEN: LANGD5; ISSN: 0743-7463
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A ternary isothermal system consisting of **Pluronic** P84 poly(ethylene oxide)/poly(propylene oxide) (PEO/PPO) amphiphilic block copolymer, "water", and "oil" (where "water" and "oil" are selective solvents for the different blocks), exhibits the richest structural polymorphism ever observed (in equilibrium) in
mixts. containing amphiphiles (such as block copolymers, surfactants, or lipids). The microstructure resulting from the self-assembly of the PEO/PPO block copolymer can vary from normal (oil-in-water) micelles in solution, through all types of normal and reverse (water-in-oil) lyotropic liquid crystals (normal micellar cubic, normal hexagonal, normal bicontinuous cubic, lamellar, reverse bicontinuous cubic, reverse hexagonal, reverse micellar cubic), to reverse micelles, as the relative volume fraction of the apolar ("oil"-like) components increases over that of the polar ("water"-like) components. The structure in the liquid crystalline phases has been established with small-angle x-ray scattering;
both the normal and the reverse bicontinuous cubic structures are consistent with the Ia3d crystallog. space group (and the Gyroid minimal surface), while the normal and reverse micellar cubic structures are consistent with the Im3m and Fd3m space groups, resp. The self-assembly of amphiphilic block copolymer in selective solvents described here provides a link between the self-assembly of surfactants in water (and oil/cosurfactant) and the self-assembly of block copolymers in the absence of any solvent. Furthermore, the ability of the PEO/PPO amphiphilic block copolymers to attain diverse microstructures is of great importance to numerous practical applications, especially since such copolymers
are com. available (as **poloxamers**, **Pluronics**, or Synperonics).

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 14 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:163728 CAPLUS
TITLE: Applications of poly (oxyethylene-b-oxypropylene-b-oxyethylene)-g-poly(acrylic acid) polymers (smart hydrogel) in drug delivery.
AUTHOR(S): Bromberg, L.; Mendum, T. H. E.; Orkisz, M. J.; Ron, E. S.; Lupton, E. C.
CORPORATE SOURCE: GelMed, Inc., Bedford, MA, 01730, USA
SOURCE: Book of Abstracts, 213th ACS National Meeting, San Francisco, April 13-17 (1997), PMSE-168. American Chemical Society: Washington, D. C.
CODEN: 64AOAA
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English
ABSTRACT:
Poly(oxyethylene-b-oxypropylene-b-oxyethylene) triblock copolymers (trademarks Poloxamer or **Pluronic**) have a potential in drug delivery due to their inherent non-toxicity, transparency, and ability to gel at body temps. Grafting of poly(acrylic acid) to **Poloxamers** imparts novel properties, such as pH-responsiveness, bioadhesiveness and gelation at low polymer concentration (1-3 w%) and therefore leads to a new family of polymeric drug vehicles (Smart Hydrogel). Solubilization of steroid hormones (estradiol, progesterone) in Smart Hydrogel is temperature-dependent and is related to structural
changes in the polymer solution upon aggregation of poly(oxypropylene) segments. Once solubilized, the drug is held in the Smart Hydrogel and released with the rate depending upon temperature and polymer concentration

L1 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:415914 CAPLUS
TITLE: Hydration and dynamics in pluronic L64 from ESR spectra of amphiphilic spin probes.
AUTHOR(S): Zhou, Lirong; Schlick, Shulamith
CORPORATE SOURCE: Department Chemistry, University Detroit Mercy, Detroit, MI, 48219-0900, USA
SOURCE: Book of Abstracts, 212th ACS National Meeting, Orlando, FL, August 25-29 (1996), POLY-147. American Chemical Society: Washington, D. C.
CODEN: 63BFAF
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English
ABSTRACT:
The triblock copolymers poly(ethylene oxide-b-propylene oxide-b-ethylene oxide) (EOmPOnEOm), available com. as **Pluronics** or **Poloxamers**, have attracted great interest because of their practical applications, and the complexity of their structures in aqueous solns. Micelles, reverse micelles and liquid crystalline mesophases have been detected, depending on polymer composition, concentration
and temperature We have initiated a study of the **Pluronic** copolymers based on the ESR spectra of spin probes that are known to intercalate into various regions of the self-assembled system. The main objectives of this study are to obtain local structural and dynamics information across the phase diagram. Results based on ESR spectra of EO13PO30EO13 (L64, M=2900) doped with amphiphilic spin probes based on doxyl stearic acid, and on spectral simulations of line shapes obtained for the lamellar phase, will be presented. Because the probes differ in the position of the nitroxide with respect to, and in the neutralization of, the polar head, they provide a range of "dipsticks" for probing the local hydration and mobility in the aggregated structures. Data on the hydration and order parameter S at various depths from the water interface will be presented.

L1 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:200424 CAPLUS
DOCUMENT NUMBER: 124:270032
TITLE: Tasteful toothpaste and other dental products containing a ternary surfactant system of poloxamers, anionic polysaccharides, and nonionic cellulose ethers
INVENTOR(S): Cutler, Edward T.
PATENT ASSIGNEE(S): Pilot Research and Development Co., USA
SOURCE: U.S., 7 pp., Cont.-in-part of U.S. Ser. No. 260,349, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5496541	A	19960305	US 1995-379260	19950127
PRIORITY APPLN. INFO.:			US 1993-5341 B2	19930119
			US 1994-260349 B2	19940615

ABSTRACT:
The title dental products are claimed. The ternary surfactant system has greatly enhanced foaming power relative to **poloxamers** alone or to ***poloxamers*** plus anionic polysaccharides or to **poloxamers** plus nonionic cellulose ethers. The poloxamer-anionic polysaccharide-nonionic cellulose ether surfactant system has little or no taste, is nonirritating, and has excellent adhesion to tooth surfaces and oral mucosa. Inclusion of a mild

abrasive plus one or more of xylitol, raw licorice, licorice extract, and glycyrrhizin and its derivs. enhances the clin. efficacy of the formulations by further reducing plaque buildup thus brightening teeth and reducing tooth decay and periodontal disease. The surfactant system can be used in a dentifrice paste or gel, powder, granules, disintegrable tablet, and a mouthwash, lozenge, and chewing gum. A dentifrice contained calcium carbonate 50.0, xylitol 31.0, microcryst. cellulose 14.6, **Pluronic** F127 2.0, xanthan gum 1.0, Methocel K15MP 0.5, flavor 0.5, and monoammonium glycyrrhizinate.

L1 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:448790 CAPLUS
DOCUMENT NUMBER: 122:215202
TITLE: Kinetic and calorimetric investigations on micelle formation of block copolymers of the Poloxamer type
AUTHOR(S): Hecht, E.; Hoffmann, H.
CORPORATE SOURCE: Universitaet Bayreuth, Physikalische Chemie I, Bayreuth, 95440, Germany
SOURCE: Colloids and Surfaces, A: Physicochemical and Engineering Aspects (1995), 96(1/2), 181-97
CODEN: CPEAEH; ISSN: 0927-7757
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Block copolymers of the Poloxamer type EOxPOyEOx (where EO = ethylene oxide and PO = propylene oxide) form micelles in aqueous solution that have a hydrophobic core of PO blocks and a strongly hydrated shell of EO blocks. The influence of electrolyte and surfactant on the aggregation behavior of three ***Poloxamers*** (**Pluronic** F127, F88 and P123) was investigated by differential scanning calorimetry (DSC) and temperature-jump measurements. The micelle formation is influenced both by addition of electrolyte and of surfactant. The critical micellization temperature of the Poloxamer decreases linearly with increasing weight fraction of electrolyte and the decrease is independent of the cation size (Li+, Na+, K+). The DSC peak that is due to the micelle formation of the Poloxamer disappears with addition of surfactant. The adsorption of the anionic surfactant sodium dodecyl sulfate starts at a lower concentration than the adsorption of the cationic surfactant N-dodecyl-N,N,N-trimethylammonium bromide, whereas the latter is adsorbed to a larger extent. For all investigated **Poloxamers** one relaxation time τ in the millisecond range is obtained. For constant temperature the relaxation time decreases with the total concentration of block copolymer. For constant concentration of block copolymer the
relaxation time decreases with increasing temperature and increasing surfactant concentration The relaxation process can be described by the Aniansson-Wall mechanism
and values for the association rate constant for the **Poloxamers** were determined The evaluated rate consts. are in the range of 0.2 + 107-2 + 107 L mol-1s-1 and are not diffusion controlled. The micellization kinetics depends on the mol. structure of the Poloxamer, which dets. the structure of the micelles. The thicker the shell of the micelle (i.e. the EO block length), the smaller the association rate constant k+. Keeping the EO block length constant and decreasing the PO block size again increases k+. Now the hydrophobic part of monomeric Poloxamer controls the penetration through the EO shell.

L1 ANSWER 18 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:448526 CAPLUS
DOCUMENT NUMBER: 122:188743
TITLE: Interaction of ABA Block Copolymers with Ionic Surfactants: Influence on Micellization and Gelation
AUTHOR(S): Hecht, E.; Mortensen, K.; Gradzielski, M.; Hoffmann, H.
CORPORATE SOURCE: University of Bayreuth, Bayreuth, 95440, Germany

SOURCE: Journal of Physical Chemistry (1995), 99(13), 4866-74
CODEN: JPCHAX; ISSN: 0022-3654
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Block copolymers of the Poloxamer, i.e. triblock block ethylene oxide (EO)-propylene oxide (PO) block copolymer type EOxPOyEOx, form micelles in aqueous solution that have a hydrophobic core of PO blocks and a strongly hydrated shell of EO blocks. The critical micellization temperature (CMT) of the **Poloxamers** is strongly influenced by cosolutes such as surfactants. The interaction of ***Pluronic*** F127 (I) (EO97PO69EO97) with the anionic surfactant (SDS) was investigated by small-angle neutron scattering (SANS), static light scattering, and differential scanning calorimetry (DSC). It is found that addition of SDS can suppress the micellization of I completely. A simple model is proposed which describes the suppression of polymer micelles by ionic surfactant. The surfactant binds cooperatively on the block copolymer mols., and the hydrophobic block is thereby made hydrophilic. At saturation conditions four to five SDS mols. bind to one I mol. The bound amount of SDS increases somewhat with increasing polymer concentration At higher concentration (w ≥ 20 wt %), pure I
forms a cubic gel with increasing temperature The gel region increases with increasing I concentration Addition of SDS to a fixed I concentration decreases the gel region,
until the gel completely disappears. The "melting" of the gel is a result of the suppression of the Poloxamer micelles. With increasing surfactant concentration the hard sphere volume fraction Φ decreases below 0.53, the critical value for hard sphere crystallization

L1 ANSWER 19 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:415320 CAPLUS
DOCUMENT NUMBER: 122:161844
TITLE: Self-aggregation and phase behavior of poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) block copolymers in aqueous solution
AUTHOR(S): Almgren, M.; Brown, W.; Hvidt, S.
CORPORATE SOURCE: Chem. Dep., Roskilde Univ., Roskilde, 4000, Den.
SOURCE: Colloid and Polymer Science (1995), 273(1), 2-15
CODEN: CPMSB6; ISSN: 0303-402X
PUBLISHER: Steinkopff
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ABSTRACT:
The phase behavior and aggregation properties of block copolymers of poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) (***Pluronics*** , **poloxamers**) in aqueous solution are reviewed with 50 refs. Theor. models are described and the properties of the micelles and the dependence of aggregation on temperature, composition and solvent are discussed in detail.

L1 ANSWER 20 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:584297 CAPLUS
DOCUMENT NUMBER: 115:184297
TITLE: Description of poloxamer P 123 and FC 127. Relative molecular weights and ratio of polyoxyethylene/polyoxypropylene
AUTHOR(S): Friess, S.; Nuernberg, F.
CORPORATE SOURCE: Friedrich-Alexander-Univ., Erlangen, W-8520, Germany
SOURCE: Pharmazeutische Industrie (1991), 53(6), 600-3
CODEN: PHINAN; ISSN: 0031-711X
DOCUMENT TYPE: Journal
LANGUAGE: German

ABSTRACT:
Relative mol. weight of the com. **poloxamers Pluronic** P123 and 3 charges of Lutrol FC127 (PL and LU, resp.), evaluated by determining terminal OH groups, revealed a value of 5000 for the former and 10,500-11,400 for the latter, whereby gel-permeation (size exclusion) chromatog. revealed large distributions within a particular batch (not quantified). Proton NMR revealed polyoxyethylene and -propylene fractions of 38.6 and 61.4 for PL and 72.1-64.9 and 27.9-35.1% for LU, resp. Data are briefly correlated with previous detns. of various polymer phys. properties (m.p., surface tension, hydrophobic properties) of pharmaceutical gel interest.

L1 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:63257 CAPLUS
DOCUMENT NUMBER: 114:63257
TITLE: Structure, form, and size of poloxamer associates
AUTHOR(S): Nuernberg, E.; Friess, S.
CORPORATE SOURCE: Friedrich-Alexander-Univ., Erlangen, D-8520, Germany
SOURCE: Pharmazeutische Industrie (1990), 52(11), 1407-12
CODEN: PHINAN; ISSN: 0031-711X
DOCUMENT TYPE: Journal
LANGUAGE: German
ABSTRACT:
Surface tension measurements were carried out on various **Poloxamers** (oxypropylene-oxyethylene block copolymers) to determine the association structure of these in transparent liquid and gel systems. Lutrol FC 127 (I) and ***Pluronic*** P 23 (II) formed micelles in aqueous solns. at concns. >7 + 10-4 and >2 + 10-3%, resp. Both **Poloxamers** possess a polyoxypropylene (POP) block with a relative mol. mass (Mr) of 4000. With decreasing POP fraction the maximum reduction in surface tension decreased, yet the critical micelle concentration (CMC) increased. **Pluronic** P65 and PE 6800, both with a POP block with a Mr of 1750, did not exhibit any CMC. Light scattering measurements confirmed the behavior of these polymers. For I and II, relative aggregate wts. of 400,000 and 525,000 and aggregation nos. of 31 and 95 were obtained, resp. Dynamic light scattering and elec. birefringence measurements indicated both to form spherical micelles with a hydrodynamic radius of 110 and 95 Å, resp. A model describing the 3-dimensional structure of the micelles is presented.

L1 ANSWER 22 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1988:192700 CAPLUS
DOCUMENT NUMBER: 108:192700
TITLE: Solubilization of tropicamide by poloxamers: physicochemical data and activity data in rabbits and humans
AUTHOR(S): Saettone, Marco F.; Giannaccini, Boris; Delmonte, Giuseppe; Campigli, Vincenzo; Tota, Giovanni; La Marca, Filippo
CORPORATE SOURCE: Lab. Technol. Farm. Biofarm., Univ. Pisa, Pisa, 56100, Italy
SOURCE: International Journal of Pharmaceutics (1988), 43(1-2), 67-76
CODEN: IJPHDE; ISSN: 0378-5173
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A series of polyoxyethylene-polyoxypropylene (POE/POP) block copolymers (***Poloxamers*** , or **Pluronics**) were evaluated as solubilizers for tropicamide, a poorly water-soluble mydriatic/cycloplegic drug. The selected ***Pluronics*** were L64, P65, F68, P75, F77, P84, P85, F87, F88 and F127. Solubility of tropicamide in polymer solns., partition coefficient of the drug between

iso-Pr myristate and polymer solns. critical micelle concentration (CMC) of the polymers
viscosity of the polymeric solns. containing tropicamide, mydriatic activity tests on rabbits and humans, and cycloplegic activity tests on humans were studied. The solubility isotherms (25°) showed that the saturation solubility of the drug increased linearly with increasing surfactants concentration in the 4.0-20.0 weight/volume
concentration range. In the presence of 20% weight/volume **Pluronics**, the drug solubility increased substantially, ranging from 1.9-fold (F88) to .apprx.3.0-fold (P85) the solubility in water at the same temperature (0.57 g/100 mL). The solubility of
tropicamide increased as the oxyethylene content of the surfactants increased, and the amount of drug solubilized per EO unit decreased with increasing hydrophilicity (increasing OE chain length) of surfactants. Calcn. of the relative amount of drug bound to the POE and to the POP portions of the surfactant mols. indicated that binding occurs in part of the hydrophilic (POE) outer mantle, and in part to the hydrophobic, (POP) inner core of the micellar aggregates, with POE/POP binding ratios varying from 1.17 to 3.13, depending on the polymer type. Biol. activity tests were carried out with some 15% weight/volume polymeric solns. (L64, P75, P84, P85 and F87) containing 1.0% weight/volume tropicamide,
and with some 20.0% weight/volume solns. (P85, F87) containing 1/5% weight/weight drug.
Tropicamide bioavailability, both in rabbits and in humans, was not decreased by micellar solubilization, and some **Poloxamers** perform
satisfactorily as solubilizing vehicles for tropicamide, producing neutral 1.0 and 1.5% drug solns. which are better tolerated and more effective than the standard aqueous eyedrops.

L1 ANSWER 23 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:476677 CAPLUS
DOCUMENT NUMBER: 99:76677
TITLE: Stable water-in-oil emulsions containing block polymer surfactants
INVENTOR(S): Guthauser, Bernadette
PATENT ASSIGNEE(S): Revlon, Inc., USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4384974	A	19830524	US 1979-61359	19790727

PRIORITY APPLN. INFO.: US 1979-61359 19790727
ABSTRACT:
Stable water-in-oil cosmetic emulsions containing up to 85% water are prepared by using such surfactants as **poloxamers** and poloxamines and cosmetically acceptable surfactants with a hydrophile-lipophile balance value of <10. The emulsions are nongreasy and are easily spread on the skin and are used in such formulations as creams, lotions, and makeup removers. Thus, a makeup remover contained **Pluronic** L121 [9003-11-6] 5.0, Arlacel 65 [86595-70-2] 2.0, 2-octyldodecanol [5333-42-6] 4.0, propylene glycol monoisostearate [68171-38-0] 4.0, mineral oil-Bentone 27 [12691-60-0] gel 15.0, iso-Pr myristate [110-27-0] 8.0, preservatives 0.5, propylene glycol 3.0, and water 58.5%.

L1 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1980:591982 CAPLUS
DOCUMENT NUMBER: 93:191982

TITLE: Cross-linked hydrophilic gels from ABA block copolymeric surfactants
AUTHOR(S): Al-Saden, A. A.; Florence, A. T.; Whateley, T. L.
CORPORATE SOURCE: Dep. Pharm., Univ. Strathclyde, Strathclyde/Glasgow, G1 1XW, UK
SOURCE: International Journal of Pharmaceutics (1980), 5(4), 317-27
CODEN: IJPHDE; ISSN: 0378-5173
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Gelation of solns. of poly(oxyethylene)-poly(oxypropylene)-poly(oxyethylene) block copolymer nonionic surfactants (**Pluronics** or **poloxamers**) by the action of γ-rays is reported. **Poloxamers** with ethylene oxide content below 70% do not gel under the conditions studied, but appear to undergo chain scission, as there is a decrease in cloud point and an increase in hydrodynamic radius which is most likely to be due to increased association of the more hydrophobic polymer. The gels obtained from ***poloxamers*** with ethylene oxide content over 70% have a high water uptake capacity. The possibility of using these gels as sustained release drug delivery systems is discussed.

L1 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1974:30687 CAPLUS
DOCUMENT NUMBER: 80:30687
TITLE: Fluorocarbon-polyol artificial blood substitutes
AUTHOR(S): Geyer, Robert P.
CORPORATE SOURCE: Dep. Nutr., Harvard Sch. Public Health, Boston, MA, USA
SOURCE: New England Journal of Medicine (1973), 289(20), 1077-82
CODEN: NEJMAG; ISSN: 0028-4793
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The emulsified fluorocarbon FC-47 (perfluorotributylamine) (I) can effectively replace red cells in vivo, and the combination of I, hydroxyethyl starch and ***poloxamers*** (**Pluronic**) effectively replaces plasma protein in vivo. At least, temporarily, neither red cells nor plasma protein appears to be necessary for the survival of the rat, for which short-term survival is possible without any natural blood. The higher halo hydrocarbons (freons) have been used with some success, but seem to possess no particular advantage.